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PTO/SB/21 (09-04) Approved for use through 07/31/2006. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. Application Number 09/654 643 Filing Date TRANSMITTAL 09/05/2000 First Named Inventor **FORM** Pak Shing Chau Art Unit 2631 **Examiner Name** Bayard, Emmanuel (to be used for all correspondence after initial filing) Attorney Docket Number RA-194(RA194.P.US) Total Number of Pages in This Submission **ENCLOSURES** (Check all that apply) After Allowance Communication to TC Fee Transmittal Form Drawing(s) Appeal Communication to Board Licensing-related Papers Fee Attached of Appeals and Interferences Appeal Communication to TC Petition Amendment/Reply (Appeal Notice, Brief, Reply Brief) Petition to Convert to a Proprietary Information After Final Provisional Application Power of Attorney, Revocation Status Letter Affidavits/declaration(s) Change of Correspondence Address Other Enclosure(s) (please Identify Terminal Disclaimer Extension of Time Request below): 1. Statement under 37 CFR 3.73(b) Request for Refund Express Abandonment Request Copy of filed and recordedassignment papers (7 pgs.) CD, Number of CD(s) Information Disclosure Statement 3. Return Receipt Postcard Landscape Table on CD Certified Copy of Priority Remarks Document(s) Reply to Missing Parts/ Incomplete Application Reply to Missing Parts under 37 CFR 1.52 or 1.53 SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT Firm Name Silicon Edge Law Group, Arthur J. Behiel, Patent Attorney Signature Printed name Arthur J. Behiel Date Reg. No. 39.603 CERTIFICATE OF TRANSMISSION/MAILING I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class in all in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below: Signature Laurie Moreno Typed or printed name

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CHANGE OF CORRESPONDENCE ADDRESS

POLICION OF THE CONTROL OF THE CONTROL OF RESERVED TO THE CONTROL OF THE CONTROL	ESS IL DISDIANS & ASIIO OWN COURUI VIUDEL
Application Number	09/654,643
Filing Date	09/05/2000
First Named Inventor	Pak Shing Chau
Art Unit	2631
Examiner Name	Bayard, Emmanuel
Attorney Docket Number	RA-194(RA194.P.US)

I hereby revoke all p	revious powers of attorney given in the above-identified application.			
A Power of Attor	mey is submitted herewith.			
OR  ✓ I hereby appoint	t the practitioners associated with the Customer Number: 38,489			
Please change the correspondence address for the above-identified application to:  The address associated with Customer Number:  38,489				
OR				
Firm or Individual Name				
Address				
City	State Zip			
Country				
Telephone	Email			
am the:   Applicant/Inventor.   Assignee of record of the entire interest. See 37 CFR 3.71.   Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)				
	SIGNATURE of Applicant or Assignee of Record			
Signature A	ent that (			
	ENT R. RICHARDSON, VICE PRESIDENT INTELLECTUAL PROPER			
Date 2	1 1000 197 5000			
NOTE: Signatures of all the inve signature is required, see below	entors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one			
*Total of	forms are submitted.			

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## STATEMENT UNDER 37 CFR 3.73(b) Applicant/Patent Owner: Rambus Inc. Application No./Patent No.: 09/654,643 Filed/Issue Date: 09/05/2000 Entitled: Low-Latency Equalization in Multi-Level, Multi-Line communication System Rambus Inc. Corporation (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.) (Name of Assignee) states that it is: 2. an assignee of less than the entire right, title and interest. The extent (by percentage) of its ownership interest is in the patent application/patent identified above by virtue of either: A 🗸 An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel 011389 , Frame 0755 , or for which a copy thereof is attached. OR A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown 1. From: \_ The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached. To: The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached. The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_, or for which a copy thereof is attached. Additional documents in the chain of title are listed on a supplemental sheet. Copies of assignments or other documents in the chain of title are attached. INOTE: A separate copy (i.e., a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.08] supplied below) is authorized to act on behalf of the assignee. Signature Arthur J. Behiel 925-621-2113 Printed or Typed Name Telephone Number Attorney for Applicant Title

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.





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SUITE 280
PLEASANTON, CA 94566

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RECORDATION DATE: 12/15/2000

REEL/FRAME: 011389/0755

NUMBER OF PAGES: 5

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

CHAU, PAK SHING

DOC DATE: 11/14/2000

ASSIGNOR:

LIAW, HAY-JYH

DOC DATE: 11/30/2000

ASSIGNOR:

KIM, JUN

DOC DATE: 11/30/2000

ASSIGNOR:

ZERBE, JARED L.

DOC DATE: 11/15/2000

ASSIGNEE:

RAMBUS INC.

2465 LATHAM STREET

MOUNTAIN VIEW, CALIFORNIA 94040

SERIAL NUMBER: 09654643

PATENT NUMBER:

FILING DATE: 09/05/2000

ISSUE DATE:

011389/0755 PAGE 2

SHAREILL COLES, EXAMINER ASSIGNMENT DIVISION OFFICE OF PUBLIC RECORDS

01-0	8-2001 ( Attorney Docket No.: RA-194			
FORM PTO 1.595 RECORI 1015 To the Assistant commissione or Patents: Please record the actual record the actual records the record th	ET U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office			
1. Name of conveying party(ies): Pak Shing Chau, Haw-Jyh Liaw,  1. Name of conveying party(ies):  Pak Shing Chau,  Pak Jyh Liaw,	Name and address of receiving party:  Name: Rambus Inc.			
Jun Kim, Jared L. Zerbe.	Street Address: 2465 Latham Street			
Additional name(s) of conveying party(ies) attached? ☐ Yes ☒No  3. Nature of conveyance:	City: Mountain View State: CA ZIP: 94040			
Security Agreement Change of Name Other  Execution Dates: 11/14/2000 – 11/30/2000	Additional namē(s) & addresses attached? ☐ Yes ⊠No			
4. Application number(s) or patent number(s):  If this document is being filed together with a new application, the execution date of the application is:				
A. Patent Application No.(s): 09/654,643 C. Patent Application Entitled: "Low-Latency Equalization in Multi-Level, Multi-Line Communication Systems"	B. Patent No.(s)			
Additional numbers	attached? ☐ Yes ⊠No			
5. Name and address of party to whom correspondence concerning document should be mailed:  Mark Lauer 7041 Koll Center Parkway, Suite 280	<ul> <li>6. Total number of applications and patents involved: 1</li> <li>7. Total Fee (37 CFR 3.41) \$ 40.00</li> <li>☑ Enclosed</li> <li>☑ Authorized to be charged to deposit account</li> </ul>			
Pleasanton, CA 94566	Deposit account number:     (attach duplicate copy of this page if paying by deposit account)			
9. Statement and signature. To the best of my knowledge and belief, the forgoing information is true and correct and any attached copy is a true copy of the original document.  1/2001 6T0N11 00000037 09654/43				
1:581 (40.00 0P)  Mark Lauer	12/12/00			
Name of Person Signing Signature	Date .			
Total number of pages including cover sheet, attachments, and document: 2  Mail documents to be recorded with required cover sheet information to:  Assistant Commissioner for Patents, Box Assignments  Washington, D.C. 20231				
I hereby certify that this correspondence is being deposit Mail in an envelope addressed to: Box Assignment, Assignment, Assignment, Assignment, Assignment, Assignment,	ted with the United States Postal Service as First Class stant Commissioner for Patents, Washington D.C., 20231,			

12/12/00 Date on December 12, 2000.

Mark Lauer

01./

## ASSIGNMENT OF PATENT APPLICATION

WHEREAS, we, Pak Shing Chau; Haw-Jyh Liaw; Jun Kin; and Jared L. Zerbe (hereinafter referred to as ASSIGNORS); having post office addresses of: 1677 Klipspringer Drive, San Jose, CA 9512; 40939 Camero Place, Fremont, CA 94539; 6 Knot Lane, Redwood City, CA 94065; and 431 Hillside Drive, Woodside, CA 94062; respectively, are the joint inventors of an invention entitled "LOW-LATENCY EQUALIZATION IN MULTI-LEVEL, MULTI-LINE COMMUNICATION SYSTEMS," filed September 5, 2000, as U.S. Patent Application Serial Number 09/654,643;

WHEREAS, Rambus Inc. (hereafter referred to as ASSIGNEE), a corporation of the State of Delaware having a place of business at 2465 Latham Street, Mountain View, CA 94040, is desirous of acquiring the entire right, title, and interest in and to the invention and in and to any letters patent that may be granted therefor in the United States and in any and all foreign countries;

NOW, THEREFORE, in exchange for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNORS hereby sell, assign, and transfer unto said ASSIGNEE, the entire right, title, and interest in and to said invention, said application and any and all letters patent which may be granted for said invention in the United States of America and its territorial possessions and in any and all foreign countries, and in any and all divisions, reissues, and continuations thereof, including the right to file foreign applications directly in the name of ASSIGNEE and to claim priority rights deriving from said United States application to which said foreign applications are entitled by virtue of international convention, treaty, or otherwise, said invention, application and all letters patent on said invention to be held and enjoyed by ASSIGNEE and its successors and assigns for their use and benefit and of their successors an assigns as fully and entirely as the same would have been held and enjoyed by ASSIGNORS had this assignment, transfer, and sale not been made. ASSIGNORS hereby authorize and request the Commissioner of Patents and Trademarks to issue all letters patent on said invention to ASSIGNEE. ASSIGNORS agree to execute all instruments and documents required for the making and prosecution of applications for United States and foreign letters patent on said invention, for litigation regarding said letters patent, or for the purpose of protection title to said invention or letters patent therefor.

IN WITNESS WHEREOF, We have hereunto signed our names on the day and year set forth below.

Pak Shing Chau
Inventor's Signature

Pak Shing Chau
Inventor's Printed Name

STATE OF Calfornia

)

COUNTY OF Santa Clara

)

On this 14th day of November, 2000, before me personally came the above named Pak Shing Chau, who is personally known by me or proved to me on the basis of satisfactory evidence to be the same individual who executed the foregoing assignment, and who acknowledged to me that he/she executed the same of his/her own free will for the use and purposes therein set forth.

MICHIKO SITES
Commission # 1236983
Notary Public - California
Santa Clara County
My Comm. Expires Oct 8, 2003

NOTARY PUBLIC Such the Sce

My Commission Expires: 07 8, 2003

Mow-lyf Law. Inventor's Signature	Haw-Jyh Liaw Inventor's Printed Name	11/30/00 DATE
STATE OF California COUNTY OF Santa Clair	) . ) SS	
On this 30tt, day of 10vember, 2 who is personally known by me or proved to me on the bathe foregoing assignment, and who acknowledged to me the purposes therein set forth.	SIS Of satisfactory evidence to be t	he come individual what is

NOTARY PUBLIC Michiba

My Commission Expires: Oct. 8, 2003

Jun Kim	Jun Kim	11-30-00
Inventor's Signature	Inventor's Printed Name	DATE
STATE OF California	) ) SS	
COUNTY OF Santa Clara	)	

On this 30th day of 100 em ber , 2000, before me personally came the above named Jun Kin, who is personally known by me or proved to me on the basis of satisfactory evidence to be the same individual who executed the foregoing assignment, and who acknowledged to me that he/she executed the same of his/her own free will for the use and purposes therein set forth.



NOTARY PUBLIC

My Commission Expires: Oct. 8, 2003

Jan L. Jan	Jared L. Zerbe	11/15/00
Inventor's Signature	Inventor's Printed Name	DATE
STATE OF California	)	
COUNTY OF Santa Clara	) SS )	•
On this 15th day of 100ember, 2003 who is personally known by me or proved to me on the basis	, before me personally cames of satisfactory evidence to be	e the above named Jared L. Zerbe, the same individual who executed

the foregoing assignment, and who acknowledged to me that he/she executed the same of his/her own free will for the use and

MICHIKO SITES
Commission # 1236983
Notary Public - California
Santa Clara County
My Comrn. Expires Oct 8, 2003

purposes therein set forth.

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My Commission Expires: Oct. 8, 2003